

A NEW SPECIES OF *GENTIANA* (GENTIANACEAE) FROM
DURANGO, MÉXICO

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ABSTRACT

Gentiana longicollis *sp. nov.*, from southeastern Durango, México, is closely related to *G. ovatiloba* Kusn. and *G. bicuspidata* (G. Don) Briq. of sect. *Pneumonanthe*, but differs from both in its combination of broadly elliptic leaves and its long, erect, merely bracteate peduncles.

KEY WORDS: *Gentiana*, Gentianaceae, México.

A new species of *Gentiana* sect. *Pneumonanthe* from México has been recognized from among recent general acquisitions during curation of Gentianaceae at LL and TEX. The specimen concerned was collected by D.E. Breedlove and distributed as "*Gentiana* cf. *ovatiloba* Kusn.," but while it is similar to that species, as well as *G. bicuspidata* (G. Don) Briq., it is clearly distinguished from them according to the keys, descriptions, and illustrations in the taxonomic treatments of Mexican *Gentiana* by Pringle (1977; 1979). Comparison with a number of LL and TEX specimens of both of its putative relatives confirms its status as a previously undescribed species.

Gentiana longicollis Nesom, *sp. nov.* (Figure 1). TYPE: MÉXICO. Durango: Mpio. Mezquitil, near Canoas, meadows with *Pinus* and *Quercus* on surrounding hills, 74 km WNW of Huejuquilla, Jalisco, 2720 m, 22 Oct 1983, D.E. Breedlove 59178 (HOLOTYPE: TEX!; Isotype: CAS).

Gentiana ovatilobae Kusn. similis sed foliis late ellipticis et pedunculis longis erectis tantum bracteatisque differt.

Roots not seen (but probably taprooted). Stems glabrous, with a leafy, decumbent portion 8-15 cm long, turning upwards and producing a solitary flower on an erect, sparsely bracteate, pedunculiform portion 5-15 cm long. Leaves opposite, slightly succulent, nearly even sized but slightly larger at

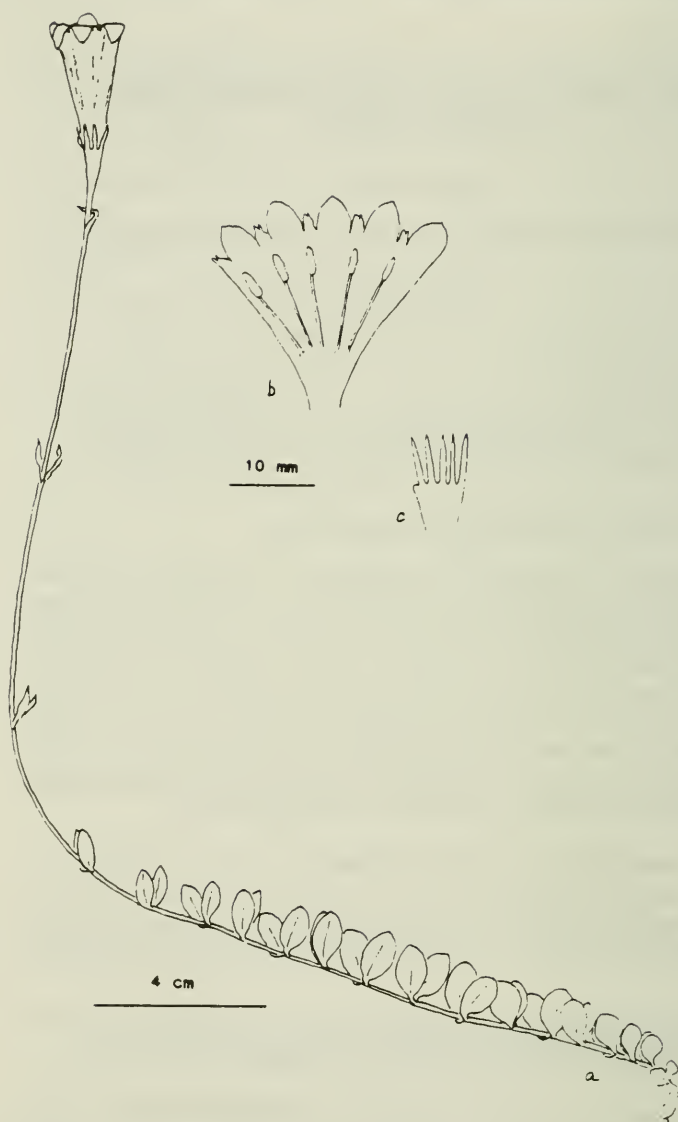


Figure 1. *Gentiana longicollis*. a. habit; b. interior of corolla, opened and flattened; and c. exterior of calyx, opened and flattened.

midstem, evenly and closely spaced, elliptic to broadly elliptic, the largest 9-14 mm long, 7-10 mm wide, 1.2-1.7 times as long as broad, constricted to a subpetiolar base, the apex rounded to obtuse, the margins entire, not thickened or tuberculate papillate, the peduncular bracts lanceolate, 8-10 mm long, in 2-3 pairs 4-6 cm apart. Flowers solitary; calyx purplish, the tube uncleft, 7-8 mm long, glabrous, the lobes erect, narrowly oblong-lanceolate, 5-6 mm long, 1 mm wide, with acute, slightly apiculate apices; corolla 30-35 mm long, the tube funnelform, the lobes spreading, ovate-triangular, 5-6 mm long, with entire margins and obtuse, minutely apiculate apices, the sinuses equal, free portions of the appendages 2-3 mm long, shallowly cleft or bifid; lower 1/3 of the corolla tube pale, the appendages becoming violet-blue upwards, the exterior of the petals distinctly bronzed to nearly the apex, interior lobes of corolla with yellow dots, the lower tube with light yellow stripes with blue dots; stamen filaments becoming free about 1/3 the height of the corolla tube, free portions 11-12 mm long; anthers 3-5 mm long, not cohering. Mature fruit and seeds not seen.

Known only from the type collection.

Gentiana longicollis is clearly most similar to *G. bicuspidata* and *G. ovatiloba* in its unbranched stems bearing solitary, blue flowers with included stamens and corolla tubes gradually flaring from the base (Pringle 1977). The new species is distinguished from both of these taxa by its combination of small, closely spaced, broadly elliptic leaves on decumbent branches and its very long, erect, merely bracteate, pedunculiform branches. It is represented on the type sheet by five separate stems broken off at the very base, but both the habit and duration are almost certainly the same as in *G. ovatiloba*. Both of the close relatives of *G. longicollis* produce stems that usually are leafy to the base of the flower. In its relatively broad, closely spaced leaves, *G. longicollis* is most similar in general aspect to *G. ovatiloba*, but the leaves of the former are definitely shorter (1.2-1.7 times longer than wide vs. 2.5-3.5 times). In its ovate-deltate corolla lobes and nearly linear calyx lobes, yellow spots on the interior of the corolla, relatively longer staminal filaments, its tendency to produce relatively long internodes (over 2 cm on the middle and lower stem), its geographic distribution, and habitats well below alpine and subalpine zones, *G. longicollis* is more similar to *G. bicuspidata*. The linear lanceolate leaves of *G. bicuspidata* are very different, however, and it apparently never has the exaggerated, nearly scapose peduncles of the new species.

Gentiana ovatiloba occurs in alpine to subalpine habitats from Guatemala, northward in México, to the volcanic peaks of Veracruz and the state of México and is separated from *G. longicollis* at the closest point by more than 650 kilometers. The type locality of *G. longicollis* lies within the geographic range of the more widespread *G. bicuspidata*, which occurs in sierran habitats from west central Chihuahua, southward to Veracruz and the state of México, where it is sympatric with *G. ovatiloba*. Pringle (1977) suggested that *G. ovatiloba*.

on the basis of its geographic distribution in the relatively younger volcanic mountains, may be a more recently derived taxon than *G. bicuspidata*. In a group of species otherwise with primarily linear to narrowly lanceolate leaves, the short, elliptic leaves with distinctly thickened and minutely tuberculate papillate margins, characteristic of both *G. ovatiloba* and *G. longicollis* suggest they may have originated as sister taxa, probably from an ancestral lineage of plants similar to *G. bicuspidata*.

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